REMARKS

Claims 1 to 27 are currently pending. Claims 1, 17, 23, and 27 are the only pending independent claims.

Allowable Subject Matter

The Applicants thank the Examiner for indicating that Claims 17 to 22 are allowable. In addition, the Applicants thank the Examiner for indicating that Claims 3, 7 to 12, 16, and 26 include allowable subject matter. As will be detailed below, Applicants assert that Claims 1 and 23, the base claims from which Claims 3, 7 to 12, 16, and 26 respectively depend, also recite allowable subject matter. Accordingly, the Applicants decline to amend Claims 3, 7 to 12, 16, and 26 to incorporate the features of the base claim from which they depend and any intervening claims, at this time.

Prior Art Rejection under 35 U.S.C. § 102(e)

The Office Action rejected Claims 1, 2, 4 to 6, 13 to 15, 23 to 25, and 27 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,760,976 to Martinson et al. (hereinafter "Martinson"). The Applicants respectfully traverse the rejection. As will be detailed below, Applicants assert that Claims 1, 2, 4 to 6, 13 to 15, 23 to 25, and 27 are patentable over the cited reference.

Applicants assert that Martinson cannot anticipate Applicants' invention because Martinson is only concerned with centering a specific wafer to correct individual wafer offset errors. In contrast, Applicants'

invention is directed to calibrating a substrate handling robot itself, not the position of a particular substrate. Thus, Martinson does not contemplate the problems solved by Applicants' invention.

More specifically, Claim 1 recites a method comprising, among other features, placing a calibration fixture in a substrate placement location where "the calibration fixture include[es] at least one sensor." Applicants submit that Martinson does not disclose a calibration fixture including a sensor. Instead, Martinson discloses placing a paddle with a "calibration fixture" (e.g., a hole or solid feature) in a process station where the process station includes a sensor. (This is done as part of a process for locating the position of the process station's sensor.) Martinson does not disclose a paddle or calibration fixture with a sensor. Instead, the process station has a sensor, which is the opposite of the recitation of Claim 1. The passage relied upon by the examiner describes using the process station's sensor to detect a wafer position. Clearly the wafer does not include a sensor and thus the relied upon passage does not anticipate Applicants' invention.

In addition, Claim 1 recites causing an end effector of a robot "to interact with the at least one sensor." Martinson does not disclose either an end effector or a robot which interacts with a sensor. While Martinson does disclose a robot arm 10, no where does Martinson disclose that the robot arm 10 interacts with a sensor. Instead, Martinson discloses that a wafer or a paddle activates the sensor of the process station. Thus,

Martinson does not disclose at least this feature of Claim
1.

Moreover, Claim 1 recites that based on the interaction between the end effector and the sensor, "determining calibration data for the substrate handling robot." As detailed above, Martinson does not disclose an end effector that interacts with a sensor. Therefore, Martinson cannot disclose determining calibration data for a substrate handling robot based on an interaction between an end effector and a sensor as recited in Claim 1. For all the reasons noted above, the Applicants respectfully submit that Claim 1 is patentable over Martinson and request that the rejection be withdrawn. Similarly, Claims 2, 4 to 6, and 13 to 15, which depend from Claim 1, are patentable for at least the same reasons.

Claim 23 recites an apparatus for use during calibration of a substrate handling robot which comprises, among other features, a body shaped to fit a substrate placement location where "at least one sensor [1s] mounted in the body." As indicated above, Martinson does not disclose such a feature.

In addition, Claim 23 recites that "the at least one sensor [is] adapted to generate calibration data for a substrate handling robot during calibration of the substrate handling robot." As outlined above, Martinson does not disclose a sensor which is used to calibrate a robot. Furthermore, Martinson does not disclose calibrating a robot. Thus, Martinson does not disclose all the features recited in claim 23 and the Applicants respectfully request that the rejection be withdrawn.

Likewise, claims 24 and 25, which depend from claim 23, are patentable for at least the same reasons.

Claim 27 recites a system comprising, among other features, "a calibration fixture which includes a body shaped to fit a substrate placement location and at least one sensor mounted in the body." In addition, claim 27 recites a controller operative to "cause an end effector of the substrate handling robot to interact with the at least one sensor." As discussed above, Martinson does not disclose either of these features.

Claim 27 also recites that the controller is operative to "determine hand-off location data for the substrate handling robot based on signals output from the at least one sensor." Martinson does not disclose this feature. As indicated above, Martinson does not disclose that the robot arm 10 interacts with the sensor of the process station. Thus, it follows that Martinson cannot disclose determining hand-off location data for a substrate handling robot based on signals output from a sensor when an end effector interacts with the sensor. Therefore, claim 27 is patentable over the cited reference and the Applicants respectfully request that the rejection be withdrawn.

Conclusion

The Applicants believe all the pending claims are allowable and respectfully request reconsideration and allowance of the same.

A separate Request for Extension of Time is included herewith. If any additional time is required,

please accept this paragraph as a request for such an Extension of Time and authorization to charge the requisite extension fee to Deposit Account No. 04-1696.

The Applicants do not believe any other fees are due regarding this amendment. If any other fees are required, however, please charge Deposit Account No. 04-1696.

The Applicants encourage the Examiner to telephone the Applicants' attorney should any issues remain.

Respectfully submitted,

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